

Date: Friday, 16/05/2008 11:13:38 AM  
 User: Linda Lacelle

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	350 SKIDTUBE ASSEMBLY RH
<b>Job Number</b> :	39232		
<b>Estimate Number</b> :	10265		
<b>P.O. Number</b> :		<b>Part Number</b> :	D350636012
<b>This Issue</b> :	16/05/2008	<b>S.O. No.</b> :	
<b>Prsht Rev.</b> :	NC	<b>Drawing Number</b> :	D2750 UNDER REVIEW
<b>First Issue</b> :	13/05/2008	<b>Project Number</b> :	N/A
<b>Previous Run</b> :	39231	<b>Drawing Revision</b> :	E
<b>Written By</b> :		<b>Material</b> :	
<b>Checked &amp; Approved By</b> :		<b>Due Date</b> :	05/06/2008
<b>Comment</b> :	Est Rev:I 02.09.25 Rearranged procedure steps KJ Est Rev:J 06-03-29 As per Rev D EC Est Rev:K 06-07.13 As per dsi9343 EC Est Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC Est Rev:M 08-04-22 update steps 4,13 DD verified by:EC		
		<b>Qty:</b>	1 Um: Each

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy blue file and type labels per PPP D350-636-012 CHG 004  
 AND PER DSI 9413 REV.A

08/06/06 08.5.14 JLD

2.0	D26003BENT	Extrusion Bent
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2600-3-Bent

Extrusion (Bent)

B38463

① M 8-5-21

3.0	D2744	Cap
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Cap

Batch:

B37768

BE

08/05/21

4.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end

2-Drill pilot holes as per Dwg D2750 sheet 3 (D2750-1 details).Drill using drill Jig DT8150 &amp; DT8863.

8-5-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8863 and cut as per dwg D2750.

11 8-5-21

4-Drill pilot holes for Detail G using DT8329

5-Open up holes for Detail B to 0.375" (4 holes per side) blade fitting location holes to 0.500" (total of 5 holes per side) as per dwg D2750. Open holes for ground handling and detail E to 0.500" (8 holes per side)

SL 8-5-22

6-Drill pilot holes for wearplates as per Dwg D2750 using DT8108

\*\*\*\*Make sure that wearplate holes are on bottom of tube\*\*\*\*

SL 8-5-26

Open 4 aft wearplate holes to 0.250". Open remaining wearplate holes to 0.297".

7-Open up holes of Detail A to 0.297" (total of 2 holes per side)

11 8-5-21

9-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004  
A/R Aluminum Rod M107877 BE 08-05-21

10-Grind welds flush as per Dwg D2750

SL 8-5-22

5.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

8 08/05/26 (86)

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8 08/05/26 (86)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SL 8-5-26

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BE 08-05-26

9.0

D2739

350 I Beam



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Web

Batch:

39071

SL 8-5-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:	Machine Or Operation:	Description :
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10.0	D34901	Cross Bolt Spacer
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Crossbolt spacer

Batch:

*233824*

*BF 08/05/27*

11.0	D34903	Cross Bolt Spacer
------	--------	-------------------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Crossbolt spacer

Batch:

*233825*

*BF 08/05/27*

12.0	D2743	Crossbolt Spacer
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Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Crossbolt Spacer

Batch:

*237767*

*BF 08/05/27*

13.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Open up holes of Detail E and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail B, E, ground handling and float holes per dwg D2750 (welding instructions on sheet 4)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R

Sikaflex-291

batch: *107804*

exp. date: *8-7-31*

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 4)

*SL 8-5-26*

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

A/R Aluminum Rod batch: M107877 BE 08/05/27

9-Grind welds flush as per Dwg D2750

10-Spot face ground handling holes section P-P (total of 4 places per side) as per dwg D2750

11-Deburr holes

SL8-5-27

14.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

S 08/05/29 (X)

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/05/29 (X)

16.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Pressure wash as per QSI 005

FL 08/06/03 (1)

17.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Gloss White (Ref. 4.3.5.1) as per Dart QSI 005 4.3

START TIME:

7:20

M 107925

OVEN TEMPERATURE:

320°

FINISH TIME:

7:50

08-06-04

(1)

18.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Inspect for foreign object per QSI 024

M-1 08/06/04

(1X)

19.0

ALS41032225

Insert



Comment: Qty.: 42.0000 Each(s)/Unit Total: 42.0000 Each(s)

Insert

Batch:

M 1004-89

M-1 08/06/04

(K)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #: Machine Or Operation: Description :

20.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



(IX)

Comment: HAND FINISHING RESOURCE #1

1-Install inserts as per dwg D2750

AND DS19413 REV.A

m.f 08/06/04

21.0

D2745

Bushing



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Bushing

Batch:

B 36230

m.f

22.0

D353525

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch:

B 38867

m.f

23.0

D353625

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch:

B 38565

m.f

24.0

D35371

Wearpad



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

WEARPAD

Batch:

B 36714 (2X)

B 38254 (IX)

m.f \*

25.0

D37941

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Gasket

B 39279 m.f

26.0

D37931

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Wearshoe

B 39277 m.f 08/06/04

(IX)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

27.0

D37911

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Wearplate

B39276

M.L.

28.0

D37943

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Gasket

B39361

M.L.

29.0

D37933

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Wearshoe

B39479

M.L.

30.0

D36721

Phenolic Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)  
Phenolic Washer

B39275

M.L.

31.0

AN526C1032R10

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Screw

M108062

M.L.

32.0

AN526C1032R18

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Screw

M108079

M.L.

33.0

D36311

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)  
WASHER  
Batch: \_\_\_\_\_

B38139

M.L.

34.0

D3488042

Blade Fitting Assembly, RH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Blade Fitting, RH  
Batch: \_\_\_\_\_

B38100

M.L. 08/06/04

(IX)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

35.0

D3492041

Plug Assembly



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

PLUG ASSEMBLY

Batch: \_\_\_\_\_

B38562

m-h

36.0

D3492043

Plug Assembly



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

PLUG ASSEMBLY

Batch: \_\_\_\_\_

B38563

m-h

37.0

AN3C5A

Bolt



Comment: Qty.: ~~38.0000~~ Each(s)/Unit Total: ~~38.0000~~ Each(s)

Bolt

Batch: \_\_\_\_\_

34 EACH : LL

M107862

\*

m-h

38.0

AN3C6A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch: \_\_\_\_\_

M105300

m-h

39.0

AN3C7A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

BOLT

Batch: \_\_\_\_\_

*[Handwritten signature and scribbles across the row]*

40.0

AN6C44A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

BOLT

Batch: \_\_\_\_\_

M107685

m-h

41.0

AN8C35A

BOLT



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

BOLT

Batch: \_\_\_\_\_

M106896

m-h 08/06/04

(IX)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

42.0

AN960C10L

washer



38 EACH

✓



\*

Comment: Qty.: ~~46.0000~~ Each(s)/Unit Total: ~~46.0000~~ Each(s)

washer

Batch: \_\_\_\_\_

M108077

m. h

43.0

AN960C816L

WASHER



\*

Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

WASHER

Batch: \_\_\_\_\_

M107520

m. h

44.0

MS210436

NUT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

NUT

Batch: \_\_\_\_\_

M107736

m. h

45.0

MS21083C8

NUT



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

NUT

Batch: \_\_\_\_\_

M107939

m. h

46.0

NAS1515H3L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

WASHER

Batch: \_\_\_\_\_

M107394

47.0

NAS1515H8L

WASHER



\*

Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

WASHER

Batch: \_\_\_\_\_

N/A

N/A 08/06/04

48.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



(X)

Comment: HAND FINISHING RESOURCE #1

1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3"

batch: \_\_\_\_\_

M106096

m. h

08/06/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH:

EXP DATE:

M107804

08/10

4-Coat all exposed fasteners with "LPS Procyon"

batch:

M104251

M-h 08/06/04

(X)

49.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/06/05 (X)

50.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

51.0

D2741

Blade, 350 Skidtube



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Blade

Batch:

36343

AS 08/06/06 (X)

52.0

AN960C816L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Washer

Batch:

M67520

AS 08/06/06 (X)

53.0

MS21083C8

NUT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Nut

Batch:

M107939

AS 08/06/05 (X)

54.0

AN8C21A

BOLT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

Batch:

M67924

AS 08/06/05 (X)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39232

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

55.0

NAS1515H8L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

WASHER

Batch: M67581

JS 08/06/05 (X)

56.0

D34931

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

WASHER

Batch: B38102

JS 08/06/05 (X)

57.0

D35321

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

spacer

Batch: B38101

JS 08/06/05 (X)

58.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

JS 08/06/06

59.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Package as per PPP D350-636-012

Per G 8/6/6

(12) 54

60.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/06/10

Job Completion



0208/06/09

B39232

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D350-636 REV E

REF FAA STC: SR00646SE

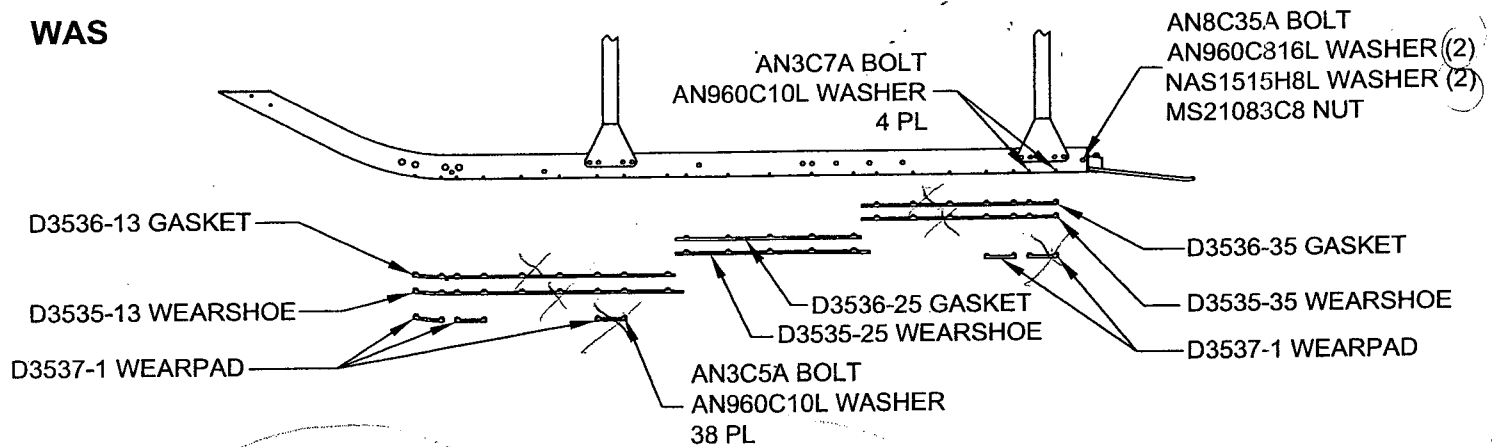
REF CANADIAN STC: SH99-7

FOR D350-636-011/-012/-013/-014 SKIDTUBES AT CHG 004:

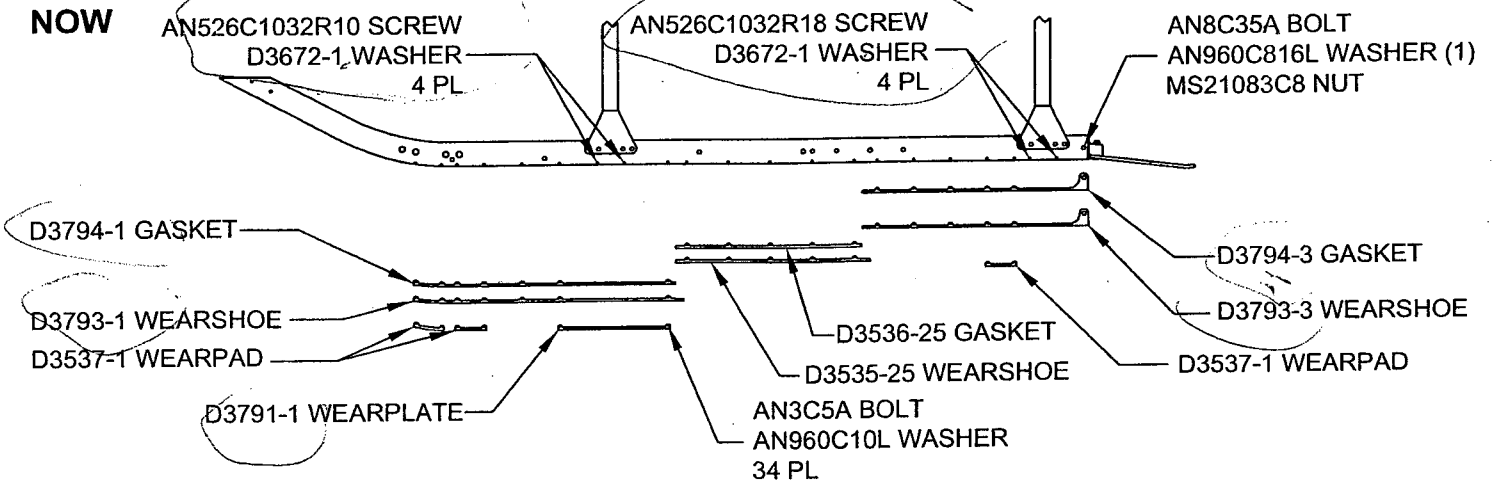
TO IMPROVE THE INSTALLATION OF THE DART D350-636-011/-012/-013/-014 SKIDTUBES ONTO THE CROSSTUBES, THE INSTALLATION AND PART NUMBERS OF THE FWD AND AFT WEARSHOES/GASKETS HAVE BEEN REVISED AS SHOWN IN FIGURE 1 BELOW.

FOR EXISTING CUSTOMERS THAT WOULD LIKE TO IMPROVE THE INSTALLATION OF THE SKIDTUBE TO THE CROSSTUBE, REFER TO PAGE 3 OF THIS DOCUMENT

**WAS**



**NOW**



**FIGURE 1 - D350-636-011/-012/-013/-014 AT CHG 004 AND INSTALLATION OF DSI 9413-011**  
(LOCATION OF AN526C1032RXX SCREWS ARE NOT TO BE USED TO MOUNT WEARSHOES)

A	NEW ISSUE	PH	08.05.14
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA	
DRAWN	PH		
CHECKED	PH	DRAWING NO.	REV. A
MFG. APPR.		DSI 9413	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		WEARSHOE INSTALLATION	NTS
DATE	08.05.14	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

**PRELIMINARY ISSUE**  
W/0 39232

**DART****RELEASED**  
07.08.02

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CHECKED <i>PH</i>	APPROVED <i>HA</i>	DRAWING NO. <b>D2750</b>	REV. E SHEET 1 OF 5
DATE <b>07.05.17</b>		TITLE <b>350 SKIDTUBE ASSEMBLY</b>	SCALE NTS
REV	DATE	DESCRIPTION	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE MS24694-S293 TO AN8-16A	
C	98.11.18	ADD D2750-3 / D2750-4; INCORPORATE D2738 AND D2740	
D	06.01.05	ADD HOLES AND SPACERS FOR APICAL FLOATS INCORPORATE DEO 9133 / 9157	
E	07.05.17	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY(38) NAS1515H3L; REMOVE QTY(10) NAS1515H8L; REMOVE D2741, QTY(2) AN960C816; REMOVE QTY(2) MS21083C8	

Qty -041	Qty -042	Qty -043	Qty -044	Part Number	Description
X				D2750-041	SKIDTUBE ASSEMBLY, LH
	X			D2750-042	SKIDTUBE ASSEMBLY, RH
		X		D2750-043	SKIDTUBE ASSEMBLY, LH
			X	D2750-044	SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-13	WEARSHOE
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3535-35	WEARSHOE
1	1	1	1	D3536-13	GASKET
1	1	1	1	D3536-25	GASKET
1	1	1	1	D3536-35	GASKET
5	5	5	5	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
42	42	42	42	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
38	38	38	38	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN3C7A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
46	46	46	46	AN960C10L	WASHER
2	2	2	2	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER
2	2	2	2	NAS1515H8L	WASHER

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DATE <b>07.05.17</b>		TITLE <b>350 SKIDTUBE ASSEMBLY</b>	SCALE NTS

GENERAL NOTES:

**RELEASED**  
*07-08-02*

1. ALL DIMENSIONS ARE IN INCHES.
2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
4. DAMAGE TOLERANCE ON BENDING:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE  $3.150 \pm 0.010$  IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE  $3.15 \pm 0.030$  IN THE BENT PORTION OF THE TUBE.
5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS C-C, D-D AND F-F.
6. WELDING TO BE DONE PER DART QSI 004.
7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:  
MINIMUM YIELD TENSILE STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
8. FINISH:  
ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.  
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
9. INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'F' SIZE HOLES ( $\emptyset 0.297$ ) FOR WEARSHOE INSERTS.
10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3C5A/AN3C7A WEARSHOE BOLTS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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NO. 157

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliot  
Job number: 39230  
Part number: D350 636 012  
Description: 350 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Penetration:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]

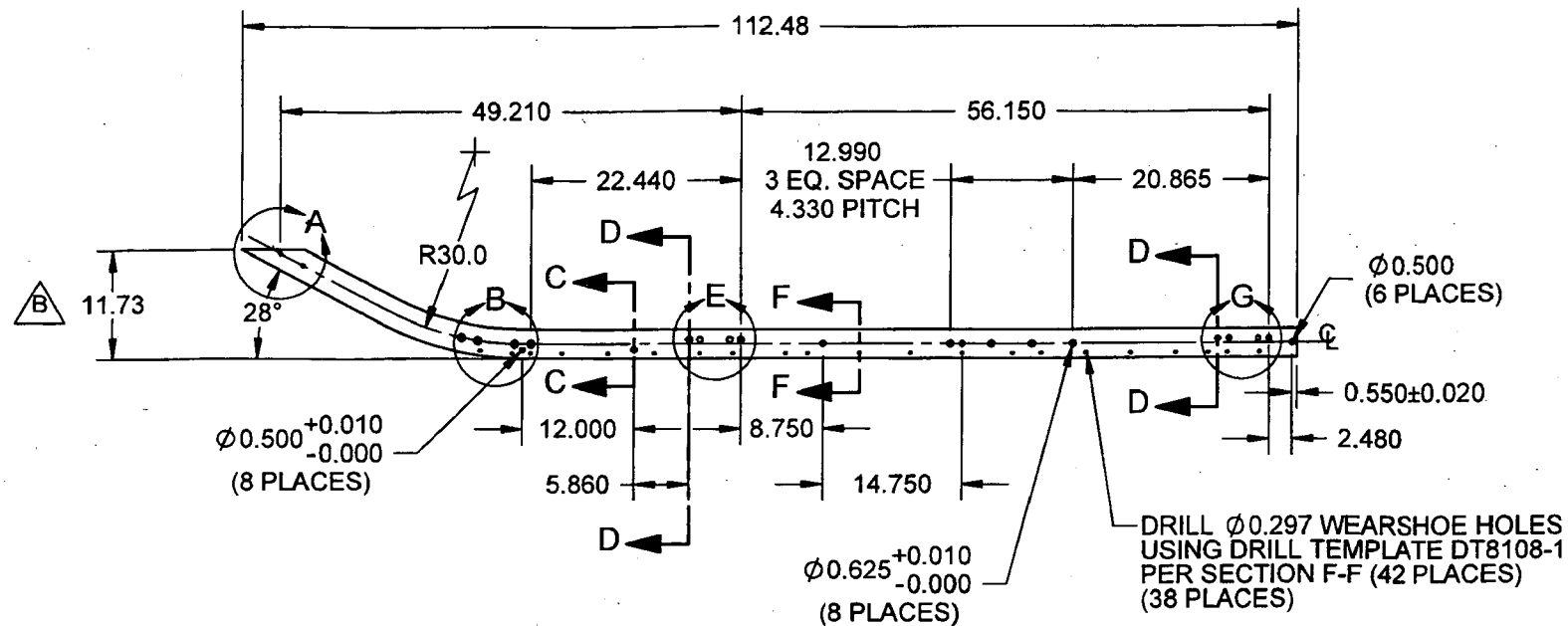
UNACCEPTABLE

Cracks:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Undercut:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Pin holes:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Overlap (cold lap)	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Porosity (surface):	pass[ <input checked="" type="checkbox"/> ]	fail[ ]
Coloration:	pass[ <input checked="" type="checkbox"/> ]	fail[ ]

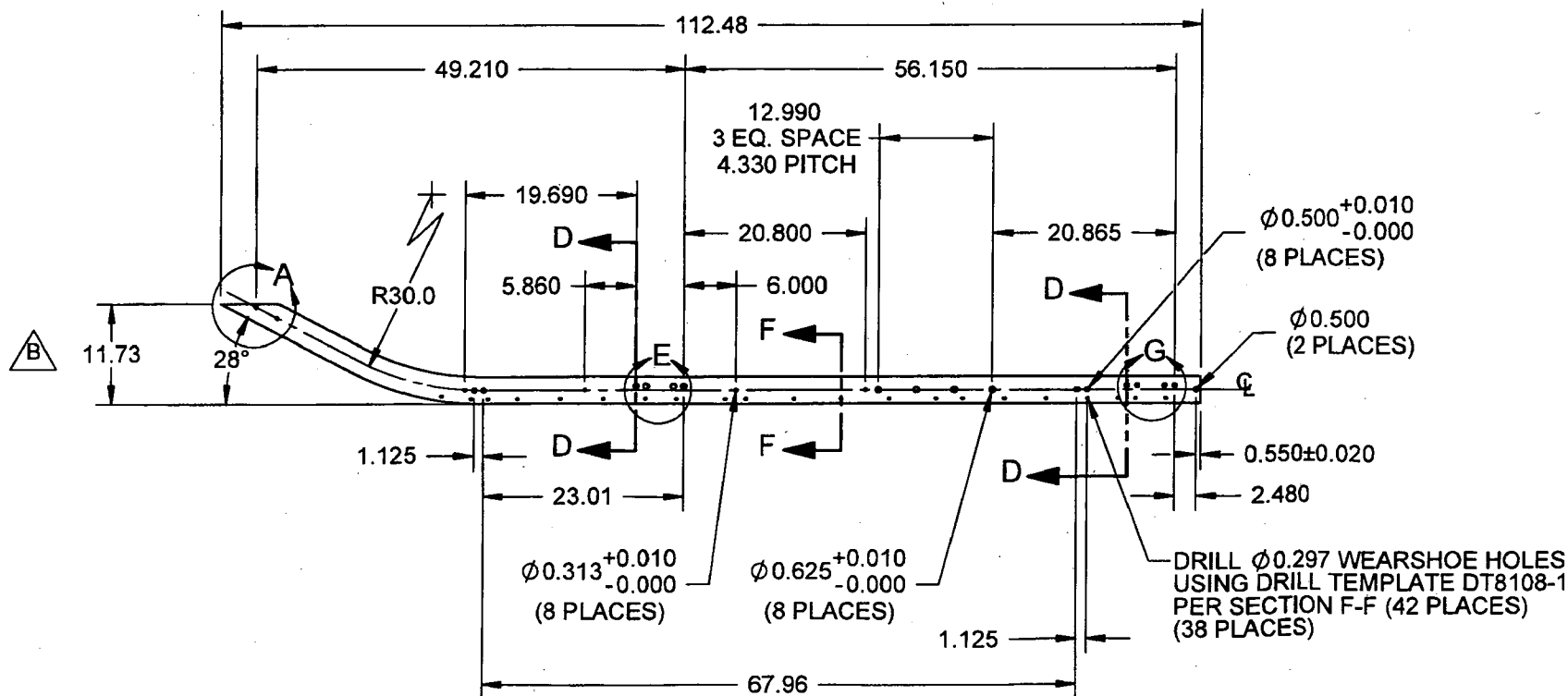
Qualifier Pat Duval Date of Test Coupon 08-05-23  
Welder Barclay Elliot Date of Test Coupon 08-05-28

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

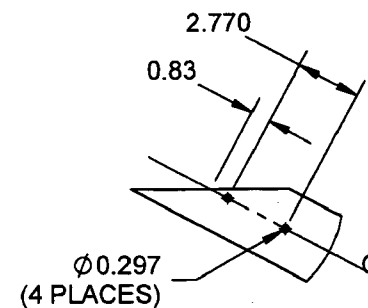




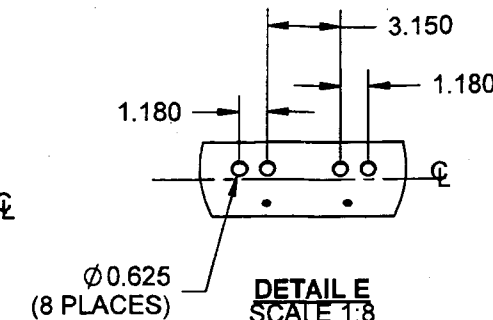
**D2750-1 LH SKIDTUBE (SHOWN)**  
**D2750-2 RH SKIDTUBE (OPPOSITE)**



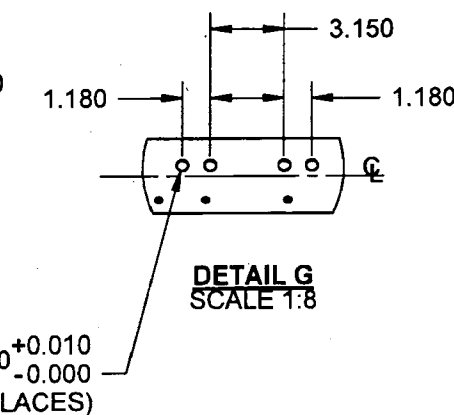
**D2750-3 LH SKIDTUBE (SHOWN)**  
**D2750-4 RH SKIDTUBE (OPPOSITE)**



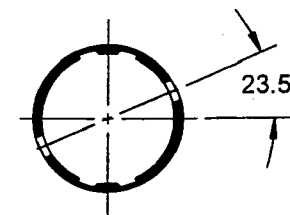
**DETAIL A**  
**SCALE 1:8**



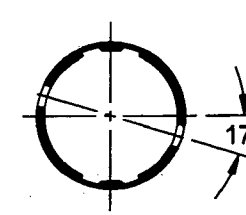
**DETAIL E**  
**SCALE 1:8**



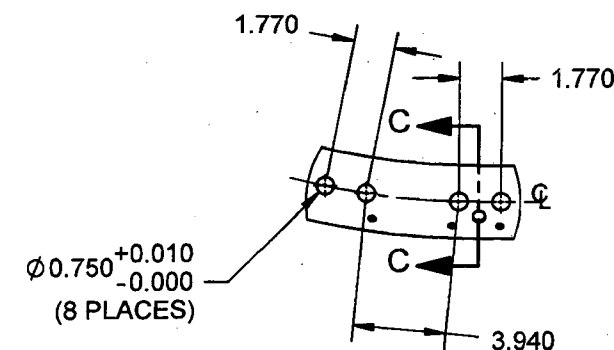
**DETAIL G**  
**SCALE 1:8**



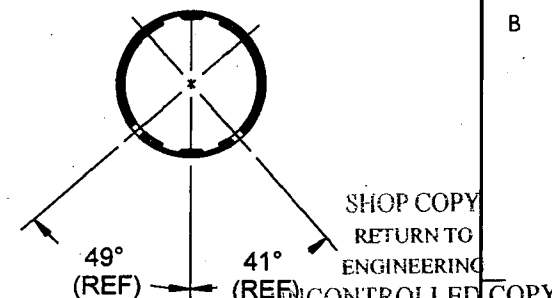
**SECTION C-C**  
**SCALE 1:4**



**SECTION D-D**  
**SCALE 1:4**



**DETAIL B**  
**SCALE 1:8**  
**(ALL DIMENSIONS ARE STRAIGHT LINE DIMENSIONS)**



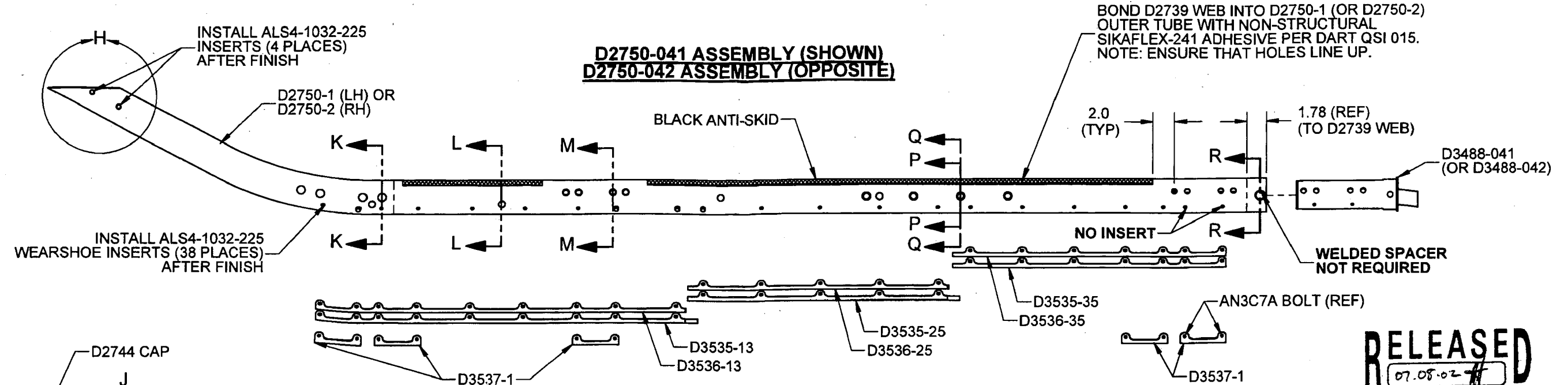
**SECTION F-F**  
**SCALE 1:4**

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67-08-02

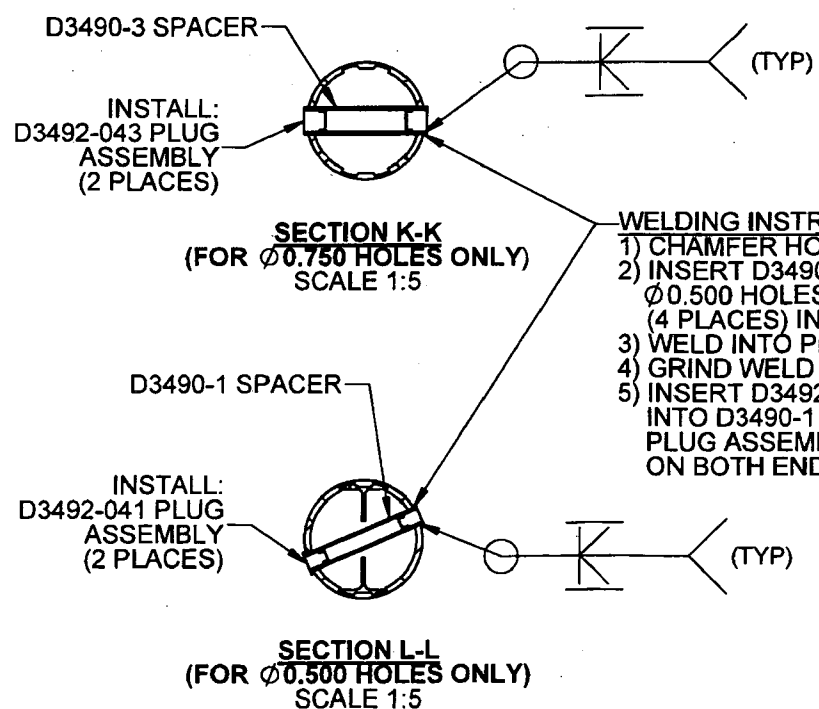
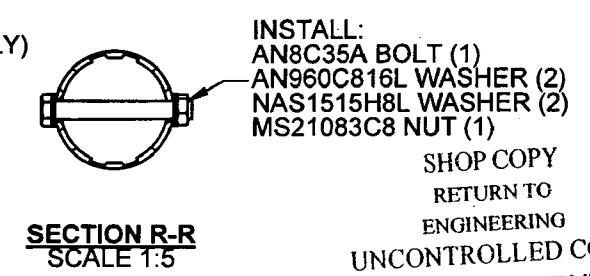
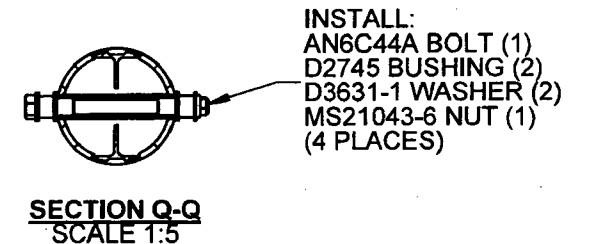
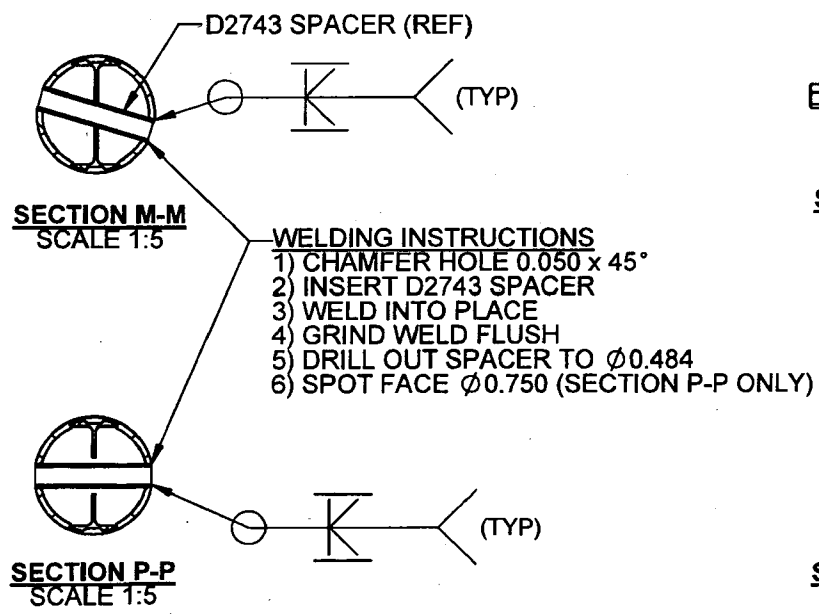
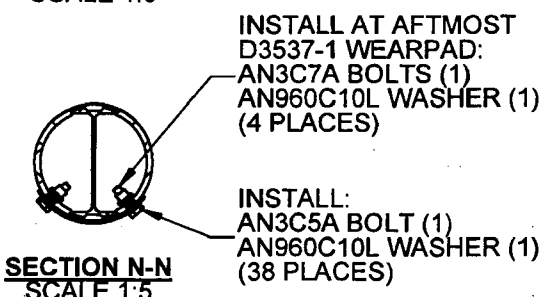
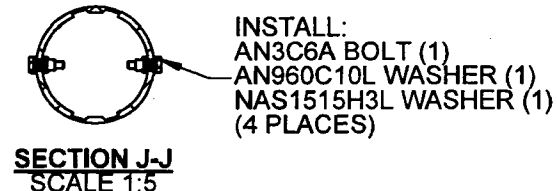
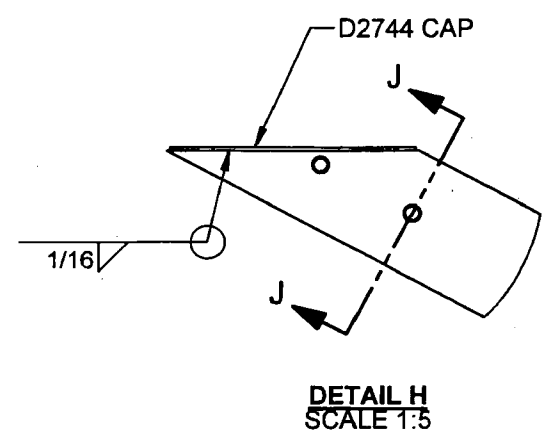
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DATE 07.05.17	TITLE 350 SKIDTUBE ASSEMBLY	SCALE 1:20	

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- WELDING INSTRUCTIONS**  
 1) CHAMFER HOLE 0.050 x 45°  
 2) INSERT D3490-1 SPACER (4 PLACES) INTO Ø0.500 HOLES OR INSERT D3490-3 SPACER (4 PLACES) INTO Ø0.750 HOLES  
 3) WELD INTO PLACE  
 4) GRIND WELD FLUSH  
 5) INSERT D3492-041 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER OR INSERT D3492-043 PLUG ASSEMBLY (8 PLACES) INTO D3490-3 SPACER ON BOTH ENDS AFTER FINISH

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**D2750-043 ASSEMBLY (SHOWN)  
D2750-044 ASSEMBLY (OPPOSITE)**

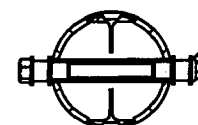
BOND D2739 WEB INTO D2750-3 (OR D2750-4)  
OUTER TUBE WITH NON-STRUCTURAL  
SIKAFLEX-241 ADHESIVE PER DART QSI 015.  
NOTE: ENSURE THAT HOLES LINE UP.

D3488-041  
(OR D3488-042)

WELDED SPACER  
NOT REQUIRED

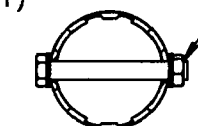
**RELEASED**  
07-08-02

INSTALL:  
AN6C44A BOLT (1)  
D2745 BUSHING (2)  
D3631-1 WASHER (2)  
MS21043-6 NUT (1)  
(4 PLACES)



**SECTION Q-Q**  
SCALE 1:5

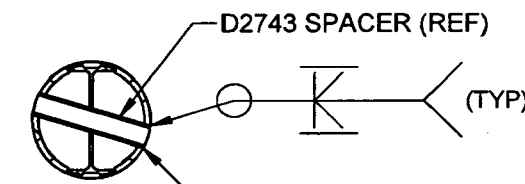
INSTALL:  
AN8C35A BOLT (1)  
AN960C816L WASHER (2)  
NAS1515H8L WASHER (2)  
MS21083C8 NUT (1)



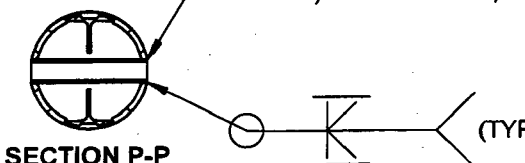
**SECTION R-R**  
SCALE 1:5

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- WELDING INSTRUCTIONS**
- 1) CHAMFER HOLE 0.050 x 45°
  - 2) INSERT D2743 SPACER
  - 3) WELD INTO PLACE
  - 4) GRIND WELD FLUSH
  - 5) DRILL OUT SPACER TO  $\phi 0.484$
  - 6) SPOT FACE  $\phi 0.750$  (SECTION P-P ONLY)

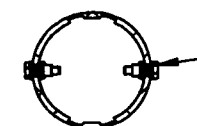


**SECTION M-M**  
SCALE 1:5



**SECTION P-P**  
SCALE 1:5

INSTALL:  
AN3C6A BOLT (1)  
AN960C10L WASHER (1)  
NAS1515H3L WASHER (1)  
(4 PLACES)



**SECTION J-J**  
SCALE 1:5

INSTALL AT AFTMOST  
D3537-1 WEARPAD:  
AN3C7A BOLTS (1)  
AN960C10L WASHER (1)  
(4 PLACES)



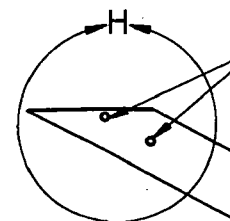
**SECTION N-N**  
SCALE 1:5

INSTALL:  
AN3C5A BOLT (1)  
AN960C10L WASHER (1)  
(38 PLACES)



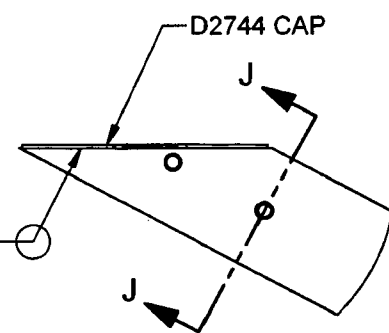
- WELDING INSTRUCTIONS**
- 1) CHAMFER HOLE 0.050 x 45°
  - 2) INSERT D3490-5 SPACER (4 PLACES) INTO  $\phi 0.313$  HOLES OR INSERT D3490-1 SPACER (4 PLACES) INTO  $\phi 0.500$  HOLES
  - 3) WELD INTO PLACE
  - 4) GRIND WELD FLUSH
  - 5) INSERT D3492-045 PLUG ASSEMBLY (8 PLACES) INTO D3490-5 SPACER OR INSERT D3492-043 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER ON BOTH ENDS AFTER FINISH

INSTALL ALS4-1032-225  
INSERTS (4 PLACES)  
AFTER FINISH



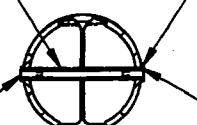
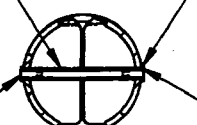
INSTALL ALS4-1032-225  
WEARSHOE INSERTS (38 PLACES)  
AFTER FINISH

**DETAIL H**  
SCALE 1:5



**SECTION T-T**  
(FOR  $\phi 0.500$  HOLES ONLY)  
SCALE 1:5

**SECTION U-U**  
(FOR  $\phi 0.313$  HOLES ONLY)  
SCALE 1:5



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DATE <b>07.05.17</b>		TITLE <b>350 SKIDTUBE ASSEMBLY</b>	SCALE 1:10
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